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SPECIAL POPULATIONS

Psychosocial Sequelae of Violent Victimization in a National Youth Sample

Sue Boney-McCoy and David Finkelhor
Family Research Laboratory
University of New Hampshire

In a national telephone sample of youths aged 10-16 years, over one third reported having been the victims of an assault. Victimized respondents displayed significantly more psychological and behavioral symptomatology than did nonvictimized respondents (more symptomatology related to posttraumatic stress disorder, more sadness, and more school difficulties), even after controlling for some other possible sources of distress. Sexual assault was associated with particularly high levels of symptomatology. However, victims of other forms of assault—nonfamily assaults involving weapons or physical injury (aggravated assaults), assaults by parents, violence to genitals, and attempted kidnappings—also evidenced levels of distress that were not statistically lower than those suffered by victims of sexual assault. The findings suggest that substantial mental health morbidity in the general child and adolescent population is associated with victimization.

Growing reports of youth homicides, gang violence, and childhood sexual assaults have led to greatly increased public and professional concern about their impact on children. These concerns have spawned a wide range of research, exploring the contribution of violent victimization to such problems as youth suicide attempts (Bagley & Ramsay, 1986; Lanktree, Briere, & Zaidi, 1991), depression (Elliott & Briere, 1991; Saunders, Vilponteaux, Lipovsky, Kilpatrick, & Veronen, 1992; Stein, Gidding, Siegel, Burnham, & Sorenson, 1988), anxiety (Briere & Runtz, 1988), academic difficulty (Dyson, 1990), posttraumatic stress disorder (PTSD; Hanson, Saunders, Duncan, et al., 1993; Saunders et al., 1992) delinquency and adult criminality (Ageton, 1983; Widom, 1989), and substance abuse (Ageton, 1983; Kilpatrick, 1990). The evidence strongly suggests that victimization can disrupt the course of child development in very fundamental ways (Pynoos & Eth, 1985) and can be associated with symptomatology over the course of the life span (Briere, 1992; Terr, 1991).

However, research on the correlates of violent victimization in children has been uneven, focused primarily on certain forms of victimization and certain groups of children. Thus, for example, children who experienced terrifying abductions (Terr,

1983) or homicidal attacks (Pynoos, Nader, Frederick, Gonda, & Stuber, 1987) have been the basis for the most important theorizing about the apparent effects of violence. Minority and inner-city youths have been the major focus of research on community violence (Osofsky, 1993; Richters & Martinez, 1993), and sexual abuse has been studied (e.g., Kendall-Tackett, Williams, & Finkelhor, 1993) almost to the exclusion of other kinds of victimization, despite the fact that it accounts for only about one sixth of all child abuse reports (Sedlak, 1991). Moreover, almost all the studies have been limited to groups of children whose victimization has been disclosed to police or child welfare authorities or who were being treated or evaluated in clinical settings, despite the fact that large numbers of young victims are never identified by authorities or evaluated by clinicians (Ageton, 1983; Russell, 1984; Saunders et al., 1992).

Violence toward youths is a problem of enormous proportions that takes many forms beyond those typically studied. Although these forms of victimization may vary in intensity, they have in common the potential to disrupt the developmental process. Recent contributions have urged a more holistic approach to the study of child victimization, balancing the traditional division of this field into multiple subspecialties with a comprehensive "victimology of childhood" (Finkelhor & Dzuiba-Leatherman, 1994b; see also Briere, 1992).

The present study was designed to assess the scope and psychosocial correlates of a wide range of violent victimizations in the general population of youths, including some victimizations conventionally considered "minor." It is the first study, to our knowledge, to examine such victimizations in a nationally representative sample of youths in the United States.

Method

Study Design

The data reported in this study were collected by an experienced independent survey research organization. Study staff conducted tele-

Sue Boney-McCoy and David Finkelhor, Family Research Laboratory, University of New Hampshire.

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Correspondence concerning this article should be addressed to Sue Boney-McCoy, Family Research Laboratory, 126 Horton Hall, University of New Hampshire, Durham, New Hampshire 03824.

phone interviews with a nationally representative area probability sample of 2,000 youths between the ages of 10 and 16 and their caretakers. The sample was geographically stratified by region, with sample allocation proportionate to population distribution. The participants were contacted through random digit dialing. Telephone interviewing is a cost-effective methodology (Weeks, Kulka, Lessler, & Whitmore, 1983), demonstrated to be comparable in reliability and validity with in-person interviews, even for sensitive topics (Bajos, Spira, Ducot, & Messiah, 1992; Bermack, 1989; Czaja, 1987; Marin & Marin, 1989) and assessment of psychological symptomatology (Potts, Daniels, Burnam, & Wells, 1990; Wells, Burnam, Leake, & Robbins, 1988).

Interviewers spoke with the primary caretaker in each eligible household (households with at least one child between the ages of 10 and 16). In households with more than one eligible child, the interviewer asked to speak to the child with the most recent birthday. After obtaining caretaker permission, interviewers described the study to the child, obtained their consent, and proceeded with an interview that lasted between 30 min and 1 hr. The participation rate was 88% of adults approached and 82% of the children. Parents were slightly more likely to bar younger children (ages 10 and 11) from participating than older children (ages 12–16; 18% vs. 13%), $\chi^2(1, N = 2,419) = 10.87, p < .001$. Parents who were willing to let their children participate reported that they perceived violence to be more of a problem in their community ($M = 2.07, SD = .84$; scale ranged from *not a problem* [1] to *great problem* [4]) than did parents who denied permission ($M = 1.94, SD = .84$), $t(2419) = 2.74, p < .005$. There were no other significant differences between eligible households that did and did not participate in the study.

Survey Sample

The final sample of 1,042 boys and 958 girls was fairly comparable to U.S. Census statistics for a population of this age: 10% Black, 7% Hispanic, and 3% from other races, including American Indian and Asian. Fourteen percent came from families with annual incomes of under \$20,000. Fifteen percent lived with a single parent at the time of the survey, another 13% lived with a parent and a stepparent, and 3% lived with a nonparental caretaker. Because the majority of children in this sample lived with at least one parent, the term *parent* is used to refer to a child's caretaker.

Assessment of Victimization

Survey items. Children were asked 12 screener questions about victimizations they might have experienced. Two of the victimization episodes disclosed in response to the screeners were followed up with more detailed questions. For children with more than two victimizations, priority was given to sexual assaults, recent assaults, and assaults that were more severe.¹ Therefore, any given respondent could be classified in up to two victimization categories, but no episode was counted in more than one category (i.e., an intrafamilial sexual assault was classified only as a sexual assault and not also as a family physical assault).

Forms of victimization. Young people were identified for this study who had experienced the following: (a) aggravated assault (physical assault involving either the use of a weapon or injury of the victim) by a nonfamily member, (b) simple assault (without a weapon and without injury) by a nonfamily member, (c) physical assault by a parent, (d) physical assault by a family member other than a parent, (e) attempted or completed kidnapping, and (f) sexual assault.² In addition, a category of violent assault to the genitals (typified by an intentional kick or punch to the genitals during the course of a fight or argument and not involving a sexual advance) was included for boys but not girls because of an extremely low number of girls ($n = 10$) reporting this type of victimization.

The category of sexual assault was divided into three subcategories for girls according to seriousness (there were not sufficient numbers of sexually assaulted boys to permit this division). Attempted sexual as-

sault included sexual advances without physical contact, being asked to do something sexual by a nonfamily member, and other incidents in which the respondent felt that an adult or older teenager was trying to "get sexual" with them in a way that made them uncomfortable. Serious noncontact (SNC) sexual assault included voyeurism, exhibitionism, and requests to engage in sexual behavior by a parent or adult relative. Contact sexual assault included any assault that was sexual in nature that involved genital contact, clothed or unclothed, between the child and a perpetrator. For all statistical analyses, girls were classified according to the most serious form of sexual assault that they reported.

Measures of Psychosocial Functioning

Measures spanned a variety of time frames: Symptoms that are associated with PTSD that had been experienced in the past week, sadness in the past month, and trouble with a teacher in the past year.

Trauma symptoms related to PTSD. Because of the low incidence of clinically diagnosable PTSD in the general child population (cf. McLeer, Deblinger, Atkins, Foa, & Ralphe, 1988), no attempt was made to render a formal diagnosis of this disorder. Instead, children were asked to indicate how often in the past week they had experienced each of 10 symptoms associated with posttraumatic stress. These symptoms were not specific to any particular event and could thus be assessed for children who had not been victimized as well as for those who had. The symptoms were taken from a modified version of the *Symptom Checklist—90—R* (SCL-90-R; Derogatis, 1977; modified by Saunders, Arata, & Kilpatrick, 1990) such as "thoughts and images that are frightening," "trouble falling asleep," and "temper outbursts you could not control." Responses included "not at all" (coded 1), "only a little bit" (coded 2), and "quite a bit" (coded 3) to create a scale that could range from 10 to 30 ($\alpha = .75$). A version of this scale has performed adequately ($\eta = .70$) in comparison with structured clinical interviews of adult women. Women with higher scores on these items were more likely to be diagnosed with PTSD (B. Saunders, personal communication, November, 1993). This scale has been used in other research on trauma in youths (J. R. Freedy, personal communication, April, 1994). Although they cannot be used to yield a clinical diagnosis of PTSD, higher scores on this scale reflect higher levels of symptomatology related to PTSD.

Sadness. Children were asked to indicate how often in the past month they were "sad": "never," "once in a while," "many times," or "all of the time." Children who gave the responses "many times" or "all of the time" were considered to have experienced substantial negative affect in the past month. Significantly more girls (16%) than boys (7%) were considered sad in the past month, $\chi^2(1, N = 1,992) = 36.01, p < .0001$.

Experiencing trouble with a teacher. Respondents were asked to indicate whether, in the past year, they had ever "experienced trouble with a teacher," a dichotomous response coded 0 for no and 1 for yes. Chil-

¹ A more detailed description of the screener items and the follow-up selection process is available on request from the authors.

² In keeping with research suggesting that physical assault perpetrated by family members may have different consequences than that perpetrated by individuals outside the family (e.g., Gelles, 1991), physical assaults by family and nonfamily members were treated separately. Physical assaults by family perpetrators were not divided into the categories of simple assault and aggravated assault because of the low number of children reporting these types of victimizations.

Category c (physical assault by a parent) does not include "spanking." Although corporal punishment by parents is increasingly viewed as a form of child victimization (e.g., Straus 1994), for a variety of conceptual and methodological reasons, it was not included in these analyses and will be addressed separately elsewhere.

dren were allowed to define what constituted "trouble"; no definition was provided by the interviewers.

Analysis Strategy

For each victimization type, separate analyses of covariance were conducted on PTSD-related symptomatology. Logistic regressions including the same covariate terms were conducted on the two dichotomous measures (sadness and trouble with a teacher). The *p* values, odds ratios, and effect sizes (*d*; Cohen, 1969) referenced in the text are based on these multivariate analyses. (This measure of effect size, *d*, represents the proportion of the pooled standard deviation by which the two means differ.) Although cross-sectional analyses cannot prove a causal link between victimization and the symptom measures, they can confirm the presence of an association.

The analyses compared victims and nonvictims for each type of victimization on each symptom measure. Nonvictims included both those children with no reported victimization and those with some other form of victimization. This coding strategy increases the difficulty of detecting victimization-related differences, but given that well over one third of this sample reported at least one victimization, this approach seemed more appropriate than contrasting victimized children with those who reported no victimization at all. In addition, previous research, especially on sexual assault, has typically compared children with a particular type of victimization to those without that particular type of victimization (e.g., without sexual assault—not to children free of several other forms of victimization as well). We have adopted this same convention to facilitate comparison of the results of this study with previous research.

The second set of analyses compared the symptomatology associated with each type of victimization with that associated with sexual assault, whose effects have been widely studied and whose serious consequences are well appreciated (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Beitchman, Zucker, Hood, DaCosta, Akman, & Cassavia, 1992; Kendall-Tackett, Williams, & Finkelhor, 1993; Resick, 1993). Children who reported no victimization of any form were excluded from this set of analyses.

All analyses were conducted separately for male and female adolescents, because some, although not all, previous research suggests the presence of gender differences in the response to victimization (e.g., Jaffe, Wolfe, Wilson, & Zak, 1986; Kendall-Tackett et al., 1993).

Covariates

Although it is impossible to make preexisting groups equivalent by the inclusion of covariates, (Briere & Elliott, 1993; Pedhazur, 1982), covarying variables permits the assumption that whatever effects are found are not the result of the linear effects of these variables. Accordingly, seven background variables that are suggested by the literature as likely candidates were included in analyses of covariance and in multivariate logistic regression because of their theoretical or empirical association with the dependent variables (cf. Briere & Elliott, 1993). These variables included the following: children's age at the time of the survey, whether the child lived with both parents at the time of the survey, the highest level of education attained by the head of the child's household, the size of the child's city or town (geographic location), the child's race (coded as two dummy variables—Black or not and White or not); and a parent-child relationship index based on the sum of seven questions tapping non-abuse-related family dynamics (e.g., "How often do you and your parents have fun together?"; scale $\alpha = .67$). This index was intended to hold constant those effects that might be due to the general quality of the parent-child relationship and not to victimization per se (Briere & Elliott, 1993).

These variables all met the statistical assumptions necessary for inclusion as covariates (Pedhazur, 1982): (a) They were significantly correlated with one or more of the dependent variables; (b) they did not

show undue multicollinearity among themselves; (c) tests for heterogeneity of slopes showed that the association between the covariates and the dependent variables did not differ across levels of the independent variables (the types of victimization); and (d) only two of the covariates, quality of parent-child relations and whether the child lives with both parents, could have been logically caused by any of the various forms of victimization (parental violence). Therefore, the benefits of including these variables as covariates appeared to outweigh the potential drawbacks. The analyses most likely to be adversely affected, those on parental violence, will be reported both with and without these two covariates.

Results

Rates of Victimization

As seen in Table 1, 35.1% (weighted to reflect population distribution of gender, age, and race) reported experiencing a completed victimization at some time in their lives. An additional 5.4% reported either an attempted kidnapping or an attempted sexual assault, and it is this 40.5% of the sample that we treated as victims. For female adolescents, the most common form of victimization reported was sexual assault (15.3%), and for male adolescents the most common form was aggravated assault by a nonfamily perpetrator (18.4%).³

Characteristics of Victimization

The victimizations reported by respondents in this sample were relatively recent occurrences. The average time elapsed since the last victimization episode was 13 months, and the median time elapsed was 7 months. The victimizations that children reported differed widely in their seriousness, frequency, and perpetrator characteristics (see Table 2). Aggravated assault by a nonfamily member and violence perpetrated by parents tended to be most strongly associated with injury, familial violence the most likely to be repeated, and both aggravated and simple assaults by nonfamily members the most likely to be reported to an authority (e.g., someone at school, the police, child protection services, etc.). Kidnappings, the victimization type most likely to be perpetrated by a stranger, were virtually all attempted, with the child actually being taken somewhere in only three cases (3%). As a result, we refer to these episodes as "attempted kidnappings" throughout the rest of the article. Despite the rarity of actual abduction, a higher percentage of children who reported attempted kidnappings reported fearing serious injury or death than did children who reported other victimizations.

Symptoms Associated With Victimization

Victimization in general, and all of the specific types of victimization, were associated with increased symptomatology, although some forms were associated with more numerous or more severe effects. Because of the extent of the data reported in this article, a summary table containing only *p* values and effect sizes (or odds ratios) is provided in Table 3.⁴

³ Additional information on the prevalence rates obtained in this study may be found in Finkelhor and Dziuba-Leatherman (1994a).

⁴ Analyses without the covariates are available from the authors.

Table 1
Frequency of Victimization

Victimization	% of female youths (n = 958)	% of male youths (n = 1,042)	% of all youths (N = 2,000)
Aggravated assault ^a	6.0	18.4	12.3
Simple assault ^a	6.6	16.3	11.5
Parental assault	2.6	1.9	2.2
Nonparental family assault	5.5	4.7	5.1
Attempted kidnapping ^b	8.0	4.2	6.1
Genital violence ^c	1.3	13.5	7.5
Any sexual assault	15.3	5.9	10.5
Attempted sexual assault	8.2	3.7	6.0
SNC sexual assault	3.9	1.2	2.5
Contact sexual assault	5.6	1.0	3.3
Any victimization in this table ^d	33.3	47.4	40.5
Any completed incident	26.1	43.9	35.1

Note. Frequencies are multiplicatively weighted to reflect the population distribution of children by age, gender, and race. SNC = serious, noncontact sexual assault (e.g., a sexual proposition by a parent).

^a Nonfamily perpetrators only. ^b Includes mostly attempted kidnapping (97%). ^c Completed violence to the genitals that did not appear to reflect sexual assault. ^d Reported any victimization listed in this table (including attempted sexual assault and attempted kidnapping).

Victimized boys and girls, as a group, reported experiencing more PTSD-related symptomatology in the past week, more sadness in the past month, and more trouble with teachers in the past year than did respondents who did not report any of the forms of victimization considered here.

Sexual assault. Consistent with previous research in this area, sexual assault had a strong association with symptomatology among both male and female adolescents. Sexually assaulted boys showed significant impairment on all three symptom measures, and sexually assaulted girls showed impairment on two of the three (PTSD-related symptomatology and trouble

with a teacher; see Tables 4 and 5). Enough girls reported sexual assault to divide girls' sexual assault into three categories: attempted, SNC, and contact sexual assault (see Method section). The effects of these three types of sexual assault on girls are shown in Table 6. Even the least invasive of these three types, attempted sexual assault, was associated with greater symptomatology on two of the three symptom measures (except sadness).

Aggravated assault. The effects of aggravated assault were comparable in magnitude with those of sexual assault on two of the three symptomatology measures. Among both male and female adolescents, aggravated physical assault perpetrated by a

Table 2
Proportion of Children Reporting Each Type of Victimization Who Reported Selected Victimization-Related Characteristics

Victimization characteristic	Aggravated assault (n = 241)	Simple assault (n = 235)	Parental violence (n = 44)	Nonparent family violence (n = 102)	Attempted kidnapping ^{a,b} (n = 60)	Genital violence (n = 141)	Sexual assault (n = 197)	Any type ^c (n = 803)
Injured (%) ^d	92	0	59	35	5	18	13	38
Bled from, or saw a doctor for, injury (%) ^e	32	0	32	8	3	4	7	13
Feared serious injury or death (%)	38	19	24	13	59	20	19	29
Stranger was perpetrator (%)	16	13	0	0	98	7	17	21
Family member was perpetrator (%) ^f	—	—	100	100	<1	6	15	21
Experienced this type of abuse more than once (%)	48	42	69	64	20	48	48	52
Experienced other forms of abuse as well (%)	43	34	59	32	66	71	56	32
Disclosed incident								
To anyone (%)	81	72	59	76	88	53	64	74
To an authority (%)	46	43	19	7	28	17	35	26

^a Includes mostly attempted kidnapping (97%). ^b Data on these characteristics were only available for 60 of the 177 children who reported a kidnapping. ^c Experienced any of the victimizations listed in this table. ^d Response to the question "Did you suffer any injuries, like cuts or bruises?" For Parental Violence, children who indicated that their parents had "hit or slapped [them] so hard that they bled or had to see a doctor" were also considered injured. ^e The response format combined these options for some children, but not for others, so they were combined here to maximize the *ns*. ^f Defined as a parent, stepparent, partner of parent, or a relative.

Table 3
Summary of the Association Between Symptomatology and Various Forms of Victimization

Victimization type	Effect size PTSD-related symptomatology ^a	Odds ratio for sadness	Odds ratio for trouble with a teacher
Any victimization ^b			
Female (<i>n</i> = 293)	.44***	1.60*	2.55***
Male (<i>n</i> = 460)	.37***	2.25**	2.46***
Sexual assault			
Female (<i>n</i> = 129)	.46***	— ^c	2.20***
Male (<i>n</i> = 61)	.34**	2.22*	2.06*
Aggravated assault ^d			
Female (<i>n</i> = 47)	.42**	— ^c	2.34**
Male (<i>n</i> = 177)	.36***	— ^c	2.42***
Simple assault ^d			
Female (<i>n</i> = 61)	.20 ^e	2.03*	— ^c
Male (<i>n</i> = 159)	.12 ^e	2.01*	1.54*
Parental violence			
Female (<i>n</i> = 22)	.45*	— ^c	3.06*
Male (<i>n</i> = 18)	.73***	— ^c	— ^c
Nonparental family violence			
Female (<i>n</i> = 53)	.03 ^e	— ^c	1.99*
Male (<i>n</i> = 43)	.06 ^e	— ^c	— ^c
Attempted kidnapping ^e			
Female (<i>n</i> = 72)	.51***	1.87*	— ^c
Male (<i>n</i> = 40)	.35*	— ^c	2.13*
Genital violence ^f			
Male (<i>n</i> = 128)	.35***	— ^c	2.13**

Note. Significance levels, effect sizes, and odds ratios derived from models comparing children who reported each type of victimization with those who did not. These models also included the following covariates: child's age at time of survey, quality of parent-child relationship index, parental education, geographic location, race, and whether the child lives with both parents. Dashes indicate that data are not reported because the *p* was nonsignificant. PTSD = posttraumatic stress disorder.

^a Effect size calculated here is *d* (Cohen, 1969). ^b Children who reported victimization listed in this table.

^c Probability was nonsignificant. ^d Nonfamily perpetrators only. ^e Mostly attempted kidnapping (97%).

^f Violent attack to the genitalia that appeared to reflect violent aggression rather than sexual assault.

* *p* < .05. ** *p* < .01. *** *p* < .001.

nonfamily member was associated with elevated PTSD-related symptoms and experiencing trouble with a teacher but not with increased sadness (see Tables 4 and 5). These episodes appear to reflect victimization by peers rather than by adults, with perpetrators and victims being within 3 years of each other's ages in 86% of boys' and 85% of girls' episodes. Despite the proximity in age between these children and their alleged attackers, the frequency of reporting that they bled or obtained medical attention was as great for these children as for those who reported physical assault at the hands of their parents (32%; see Table 2).

Simple assault. The effects of simple assault tended to be only one half to three fourths as great as those of aggravated assault (see Tables 4 and 5). One exception to this pattern was found on the measure of sadness in the past month, where the (significant) coefficient for simple assault was nearly 3 times that of (nonsignificant) aggravated assault in boys and over 10 times that of aggravated assault in girls. As was the case with aggravated assault, the majority of both boys' and girls' attackers were no more than 3 years older than the respondents (82% and 80%, respectively).

Parental violence. Parental physical violence was associated with marked PTSD-related symptomatology, with effect sizes that equaled or exceeded those for sexual assault (see Tables 4 and 5). The association between parental violence and this measure was substantial; the *ds* ranged from .45 to .73, repre-

sented moderate-to-large effect sizes. Among girls, parental violence was associated with an a threefold increase in experiencing trouble with a teacher, although no such association was observed for boys. Significant associations were not seen between parental violence and sadness.

The results were largely unaffected by removal of the parent-child relationship index as a covariate, although the association between teacher trouble and parental violence reached significance at the *p* < .01 level among girls (β = 1.21, odds ratio = 3.35).

Nonparental family violence. Of all the victimizations assessed in this study, nonparental family violence showed the fewest and weakest associations with the symptom measures (see Tables 4 and 5). It was not significantly associated with any of the symptom measures among boys. Among girls, nonparental family violence was associated only with experiencing trouble with a teacher in the past year, and it was associated with an almost doubled chance of experiencing this symptom.

Attempted kidnapping. Both boys and girls who reported an attempted kidnapping showed elevated PTSD-related symptomatology. Boys, but not girls, showed increased odds of having trouble with a teacher, and girls, but not boys, were almost twice as likely to be sad (see Tables 4 and 5).

Genital violence. Genital violence was associated with a surprising degree of symptomatology. Boys who had experi-

Table 4
Association Between Victimization and Mean Scores on PTSD-Related Symptomatology: Analyses of Covariance

Experienced victimization	Male					Female				
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i> ^a	<i>d</i> ^b	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i> ^c	<i>d</i>
Any type										
Yes	466	13.47	3.09	34.21***	.37	302	14.46	3.71	39.60***	.44
No	521	12.44	2.51			609	13.08	2.90		
Sexual assault										
Yes	62	14.05	3.21	6.44**	.34	135	15.01	3.76	26.13***	.46
No	925	13.05	2.83			776	13.52	3.14		
Aggravated assault ^d										
Yes	181	13.82	2.97	20.89***	.36	48	15.14	4.39	9.59**	.42
No	806	12.79	2.81			863	13.74	3.24		
Simple assault ^d										
Yes	161	13.26	3.23	2.16 ^e	.12	63	14.19	3.52	2.90 ^e	.20
No	826	12.91	2.80			848	13.51	3.33		
Parental violence										
Yes	18	15.23	4.13	10.28***	.73	24	15.29	4.32	5.61*	.45
No	969	13.14	2.83			887	13.80	3.30		
Nonparent family violence										
Yes	43	12.96	2.81	0.17 ^e	.06	53	13.46	2.99	0.05 ^e	.03
No	944	13.13	2.88			858	13.55	3.37		
Attempted kidnapping ^f										
Yes	40	14.02	3.76	5.05*	.35	74	15.13	3.83	20.33***	.51
No	947	13.02	2.83			837	13.49	3.25		
Genital violence										
Yes	128	13.94	2.87	14.50***	.35					
No	859	12.91	2.84							

Note. Means are adjusted for the effects of child's age, quality of parent-child relationship, parent's education, geographic location, race, and for whether the child lives with both parents. PTSD = posttraumatic stress disorder.

^a All analyses of covariance for male victims have *dfs* of 1 and 978. ^b Effect size (Cohen's *d*; Cohen, 1969) calculated on means adjusted for covariates. ^c All analyses of covariance for female victims have *dfs* of 1 and 902. ^d Nonfamily perpetrators only. ^e Probability was nonsignificant.

^f Mostly attempted kidnappings (97%).

* $p < .05$. ** $p < .01$. *** $p < .001$.

enced violent attacks to their genitals (13.5% of boys) showed significantly greater PTSD-related symptomatology and trouble with a teacher, and the strength of these associations was similar to that seen for sexual assault and for aggravated assault by a nonfamily member (see Tables 4 and 5).

Effects of the Covariates

When entered as a covariate (with the other six covariate terms), the parent-child relationship index was significantly related to the dependent variable in all analyses conducted for both boys and girls (all $ps < .01$). Better parent-child relations were consistently associated with fewer symptoms. Children's age at the time of the interview was also associated with the dependent variable in many of the analyses, but the direction of the association differed as a function of the symptom considered. Among both boys and girls, younger children reported less PTSD-related symptomatology and more trouble with teachers. Among girls only, older children were more likely to be sad. Other covariates were associated with the dependent variable in some analyses for either boys or girls but not in the majority of analyses.⁵

Victimization Among Symptomatic Youths

The preceding analyses presented the rate of symptomatology among victimized and nonvictimized children. Another

way of looking at the relationship between victimization and symptomatology is to examine the rate of victimization among symptomatic children. This inverted perspective is useful because adults may notice young people on the basis of symptoms before they are aware of a history of victimization. Among male adolescents who were sad in the past month, 68.4% reported experiencing at least one of the forms of victimization discussed here, compared with only 45.2% of male adolescents who were not sad in the past month, $\chi^2(1, N = 1,006) = 15.26, p < .0001$. Similarly, 62.7% of male adolescents who experienced trouble with a teacher in the past year reported at least one form of victimization, compared with 37.5% of male adolescents who did not have such trouble, $\chi^2(1, N = 1,006) = 60.09, p < .00001$. Among female adolescents, those who were sad in the past month were more likely to have experienced a victimization (50%) than those who were not (29.7%), $\chi^2(1, N = 914) = 22.12, p < .0001$, and those who had trouble with a teacher in the past

⁵ Because the focus of this article was on victimization, the proportion of variance explained by each of the covariates was not calculated. The proportion explained by the entire block of covariates ranged from three times the magnitude of the victimization considered (e.g., aggravated assault) to one hundred times (e.g., nonparental family violence). The block of covariates tended to explain more variance in psychosocial symptomatology among girls (partial η^2 ranging from .14 to .19) than among boys (partial η^2 ranging from .09 to .10).

Table 5
Logistic Regression Coefficients and Odds Ratios for Sadness and Trouble With a Teacher as a Function of Victimization

Experienced victimization	Male						Female					
	% sad (n) ^a	Coefficient	Odds ratio	% had trouble (n)	Coefficient	Odds ratio	% sad (n)	Coefficient	Odds ratio	% had trouble (n)	Coefficient	Odds ratio
Any type ^b												
Yes	11 (472)	.45**	2.25	50 (473)	.90***	2.46	23 (300)	.47*	1.60	47 (301)	.94***	2.55
No	5 (534)			26 (532)			11 (614)			21 (615)		
Sexual assault												
Yes	18 (56)	.80*	2.22	59 (56)	.72*	2.06	26 (133)	.34	ns	52 (134)	.79***	2.20
No	7 (950)			36 (951)			13 (781)			26 (782)		
Aggravated assault ^c												
Yes	10 (182)	.26	ns	57 (182)	.88***	2.42	21 (48)	.06	ns	52 (48)	.85**	2.34
No	7 (824)			33 (821)			15 (866)			28 (868)		
Simple assault ^c												
Yes	13 (164)	.70*	2.01	46 (164)	.43*	1.54	27 (64)	.71*	2.03	41 (63)	.43	ns
No	7 (842)			36 (843)			15 (850)			29 (853)		
Parental violence												
Yes	11 (18)	.01	ns	61 (18)	.54	ns	33 (24)	.64	ns	63 (24)	1.12*	3.06
No	8 (988)			37 (989)			15 (890)			29 (892)		
Nonparent family violence												
Yes	9 (44)	.13	ns	38 (45)	-.13	ns	21 (53)	.28	ns	45 (53)	.69*	1.99
No	8 (962)			38 (962)			15 (861)			28 (863)		
Attempted kidnapping ^d												
Yes	10 (42)	.12	ns	55 (42)	.76*	2.13	30 (73)	.63*	1.87	47 (74)	.50	ns
No	8 (964)			37 (965)			14 (841)			28 (842)		
Genital violence ^e												
Yes	13 (129)	.54	ns	58 (129)	.76***	2.13						
No	7 (877)			35 (878)								

Note. These multivariate statistics are from logit models that included dichotomous measures of child's age, quality of parent-child relationship, parents' education, geographic location, race, and whether the child lives with both parents.

^a *Ns* reflect the number of children who did or did not report experiencing each form of victimization. ^b Experienced any victimization listed in this table. ^c Nonfamily perpetrators only.

^d Mostly attempted kidnapping (97%). ^e Completed violence to genitals that did not appear to reflect sexual abuse.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Association Between Sexual Assault and Mean Score on PTSD-Related Symptomatology, Likelihood of Sadness, and Likelihood of Having Trouble With a Teacher in Female Victims

Experienced victimization	PTSD-related symptoms in past week						Sadness in past month			Teacher trouble in past year		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i> ^a	<i>p</i>	<i>d</i> ^b	% sad (<i>n</i>) ^c	Coefficient	Odds ratio	% had trouble (<i>n</i>)	Coefficient	Odds ratio
Attempted sexual assault												
Yes	61	14.19	3.70	4.44	<.05	.25	13 (60)	-.45	<i>ns</i>	47 (60)	.63*	1.89
No	776	13.38	3.14				13 (781)			26 (782)		
SNC sexual assault												
Yes	24	14.65	3.07	4.66	<.05	.41	21 (24)	.05	<i>ns</i>	50 (24)	.78	<i>ns</i>
No	776	13.35	3.14				13 (781)			26 (782)		
Contact sexual assault												
Yes	50	16.17	3.77	27.99	<.001	.76	45 (49)	1.05**	2.87	58 (50)	.96**	2.61
No	776	13.77	3.14				13 (781)			26 (782)		

Note. Multivariate statistics are adjusted for the effects of child's age, quality of parent-child relationship, parents' education, geographic location, race, and for whether the child lives with both parents. For logit analyses on sadness and trouble with a teacher, covariates were dichotomous. PTSD = posttraumatic stress disorder. SNC = serious noncontact (sexual assault).

^a For attempted sexual assault, *dfs* were 1 and 828; for SNC sexual assault, *dfs* were 1 and 792; for contact sexual assault, *dfs* were 1 and 818. ^b Effect size (Cohen, 1969). ^c *Ns* reflect the number of children who did or did not report experiencing each form of victimization.

year were more likely to say they were victimized (52%) than those who did not (24.9%), $\chi^2(1, N = 914) = 63.53, p < .0001$. Although sexual abuse was fairly common among these symptomatic youths, it did not account for most of the victimizations they reported. No more than 13% of sad or teacher-troubled male adolescents and no more than 26% of sad or teacher-troubled female adolescents reported experiencing sexual abuse.

Comparison With Sexual Assault

Because so much research has investigated the effects of sexual assault, and because it is so widely recognized as an extremely serious form of child trauma, we chose to use it as a benchmark against which the association with other victimizations might be compared.⁶ Statistical comparison shows that most forms of victimization were equivalent to sexual assault in their association with the psychological measures. Only two forms of victimization, nonparental family assault and simple assault by a nonfamily member, showed weaker associations than sexual assault with some of the symptom measures. Among girls, nonparental family assault was associated with significantly less PTSD-related symptomatology, $F(1, 88) = 5.54, p < .05; d = .53$, than was contact sexual assault, and simple assault was associated with significantly less chance of experiencing trouble with a teacher ($\beta = -1.36, p < .05$, odds ratio = .26). Among boys, nonparental family assault was associated with significantly less PTSD-related symptomatology, $F(1, 86) = 5.39, p < .05, d = .48$, and less chance of experiencing trouble with a teacher ($\beta = -1.03, p < .05$, odds ratio = .36) than was sexual assault. The other victimization types (aggravated assault by a nonfamily member, parental violence, attempted or completed kidnapping, and genital violence) were not significantly less associated than sexual assault with any of the three symptom measures for either boys or girls (all *ps* > .05).

Discussion

The present findings indicate that violent victimization is associated with psychological and behavioral symptomatology in

the general population of youths in the United States. In a random national sample of children in the United States, an increased prevalence of sadness, PTSD symptoms, and school problems was associated with a wide range of victimizations.

Extrapolating from these estimates, over 6.1 million youths aged 10–16 (more than one third of the cohort of this age) have suffered one of the forms of assault we studied. As a result, they are vulnerable to related distress that includes, for example, over a twofold increase in sadness and in trouble with a teacher for both boys and girls. Increased symptomatology was associated with every type of victimization that we studied, including simple and aggravated physical assaults as well as sexual assaults, attempted kidnappings and parental violence. Without a longitudinal design, one cannot determine whether victimization caused this symptomatology, but it is a possible explanation.

Consistent with the special attention it has received, sexual assault appears to be one of the most serious forms of victimization among both boys and girls. It is noteworthy that for girls even the report of attempted sexual assault—involving no physical contact—was associated with symptomatology. This finding highlights the noxious correlates of even interrupted forms of predatory sexual behavior. At present, these results warrant advising clinicians and others who work with young people to be aware of the potentially harmful consequences of what may appear to be “minor” sexual victimization experiences.

Three forms of nonsexual victimization were associated with symptomatology statistically indistinguishable in severity from that associated with sexual assault for both boys and girls: aggravated assault (physical violence by nonfamily members that involved injury or the use of a weapon), kidnapping (almost

⁶ Because of the low number of sexual victimizations among male respondents, boys who suffered nonsexual victimizations were compared with those who experienced any form of sexual abuse. Among female respondents, we were able to take a more conservative approach and compare nonsexual victimizations with contact sexual assault, which was the form of sexual victimization most strongly associated with symptomatology.

entirely unsuccessful attempts by strangers to lure children into cars), and parental violence (excluding corporal punishment). The first two types in particular have not been the subject of much study, but the present findings suggest that they should receive substantial attention. Because the majority of aggravated assaults directed against both boys and girls were perpetrated by individuals not more than 3 years older at the time of assault, these findings suggest that even episodes of violence that "only" involve children harming other children need to be taken seriously, and recognized as potential sources of genuine distress.

Boys who had suffered violence directed against their genitals (episodes with a primarily violent rather than sexual intent) also had symptomatology equivalent to those who had been sexually abused. This finding is particularly noteworthy because twice as many boys reported experiencing genital violence as reported sexual assault (13.5% vs. 6.4%). This form of assault has never (to our knowledge) been studied before, even in the literature on sexual assault, and obviously merits investigation.

Two forms of victimization—simple assault (individual or group violence resulting in no physical injury) and nonparental family assault (mostly violence by siblings)—were associated with distinctly less symptomatology than were other forms. Nonparental family assault was only associated with increased trouble with a teacher among girls. Simple assault was associated with somewhat more symptomatology; victimized boys experienced more sadness and teacher trouble than did nonvictimized boys, and victimized girls experienced more sadness. Both forms of victimization, however, had weaker associations than did sexual assault with at least one of the symptom measures. These findings do not suggest that these forms of victimization are unimportant. Although the symptoms associated with them were not as strong or broad as those of other victimization types, they were still associated with significant symptomatology on some measures.

Several features of this study should be kept in mind when drawing conclusions about violent victimization. The first concerns the severity of the incidents discussed. Screening questions were specifically intended to tap a very broad range of victimizations; therefore, each victimization category includes many episodes that some people might consider relatively minor. For example, only 5.7% of the victimizations discussed here were reported to the police; a large number (26%) had not been disclosed to anyone at all before children reported them to us. Because this is a community, nonclinical sample, there are very few of the most egregious and horrifying incidents that most typify discussions about the impact of violence. Moreover, we expect that there was some underreporting of the most serious kinds of victimization (e.g., incestuous sexual assault and severe parental violence) because youths may have been uncomfortable disclosing these incidents. Despite these qualifications, the forms of victimization studied were found to be associated with psychological or behavioral symptomatology, suggesting that concern for child victimization be expanded to include apparently "minor" as well as obviously heinous experiences.

A strength of this study is that the association between victimization and psychological functioning was assessed after controlling for the effects of factors such as social class, race, and quality of parent-child relationship. The use of these covariates strengthens the assertion that the differences we found were in-

deed the result of victimization and not caused by factors otherwise associated with symptomatology. It is possible that other such factors may further attenuate the relationships reported here. However, in no case did inclusion of the covariates change a nonsignificant finding to a significant one, although there were several instances in which significant univariate relationships disappeared in the presence of the covariates.

A limitation of the present research is that we cannot definitively ascertain the temporal ordering of the victimization episodes and psychosocial symptomatology. These findings may, therefore, suggest that previously symptomatic youths were more susceptible to victimization or were more likely to remember victimizations that they experienced. We tried to diminish the validity of such an interpretation by partialing out other factors, such as quality of parent-child relationship, that would probably be associated with previctimization symptomatology. Ultimately, however, a longitudinal approach is needed to resolve this issue.

A second limitation is the somewhat restricted set of symptom measures. Although research suggests that psychological and behavioral symptomatology can be adequately assessed in telephone interviews, a more detailed assessment might have revealed more extensive and subtle effects. These limited measures probably overstated the equivalency between various victimizations and sexual assault, which in particular, has been shown to have certain specific effects, such as impact on sexual development (Kendall-Tackett et al., 1993).⁷

Interpretation of these results must also be qualified by the fact that we were unable to control for the presence of multiple victimizations. Thirty-two percent of victimized children reported experiencing more than one form of victimization, but the cell sizes that remained when such children were excluded from analyses were too small to yield reliable results. It is, therefore, possible that some of the observed association with psychosocial symptomatology was due to the cumulative or interactive effects of multiple victimizations and not to each specific type of victimization. The present study was not designed to examine the differential impact of multiple versus single victimizations, but these results highlight this as an area in which further research is needed.⁸

A final caveat in interpreting these results concerns the number of statistical comparisons that were performed, which increases the possibility of a Type I error. The consequences of committing a Type II error, however, seem to be more serious. Given that this is the first time that some of these forms of victimization have been studied, a conclusion that there is no association between certain forms of victimization and symptomatology, when there actually was one, could have damaging consequences. Thus, we decided to use the $p < .05$ level of

⁷ An additional measure of symptomatology that was not reported in this article, but which was collected, was an indicator of lifetime depression, assessed with a modified version of the Diagnostic Interview Schedule (Robins, Helzer, Cottler, & Goldring, 1988). Analyses on children who were classified as "sad" in the past month and who reported a lifetime occurrence of depression essentially replicated the findings reported here for children who only met the sadness criterion.

⁸ An article concerning a related issue, the relationship between previous victimization and symptomatology associated with sexual assault, is forthcoming (Boney-McCoy & Finkelhor, in press).

significance. The effect sizes and odds ratios obtained in these analyses fall mostly in the moderate range (Cohen, 1969), suggesting that they should not be dismissed as inconsequential. Nonetheless, statistical correction for the number of contrasts performed (Bonferroni correction) would considerably change the conclusions drawn from these data.

These findings suggest a variety of implications both for practitioners and researchers. Practitioners need to be diligent in screening for other victimizations, in addition to sexual assault. Our data suggest that half of the female adolescents and over 60% of male adolescents who experienced substantial negative affect in the past month suffered some form of victimization, but less than half of these victimized children reported experiencing sexual assault. Although sexual assault was associated with serious symptomatology in this sample, children who experienced other victimizations such as parental violence, genital violence, kidnapping, and aggravated nonfamily assault appeared equally symptomatic. These findings support a recent trend in child abuse and other trauma research to examine not just a single type but a range of traumas or victimizations, in the attempt to understand the correlates of psychopathology (Briere & Runtz, 1990; Claussen & Crittendon, 1991; Moeller, Bachman, & Moeller, 1993; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993).

Research should be expanded to cover other forms of victimization not considered in this study, and victims should also be sampled from broader populations than has been the norm. In addition to focusing on traumatized youths, researchers should also strive to identify those who survive victimization with relatively few adverse consequences. Such resilient individuals may provide information that will greatly facilitate the development of effective interventions both pre- and postvictimization (cf. Rutter, 1987; Werner, 1989). Research also needs to be conducted with children of even younger ages than were interviewed in this sample. Greater developmental vulnerability may render younger children prone to more serious (or at least to different sorts of) effects (Briere, 1992).

Ultimately, researchers should strive for a developmental victimology of childhood (Finkelhor & Dzuiba-Leatherman, 1994b). Such a framework would chart the different kinds of victimization that children are prone to at different ages (Finkelhor, 1995). For example, preschool-age children experience proportionately more parental and sibling violence and less sexual assault. The framework would conceptualize the differing effects of violent victimization at different developmental stages. Evidence suggests that violent victimization is a major traumagenic influence in child development, and it may account for a substantial portion of mental health morbidity in both childhood and in later adult life. These are powerful arguments for the need to quell the tide of violence in society and to protect children from its consequences.

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